

NASA TECH BRIEF

Kennedy Space Center

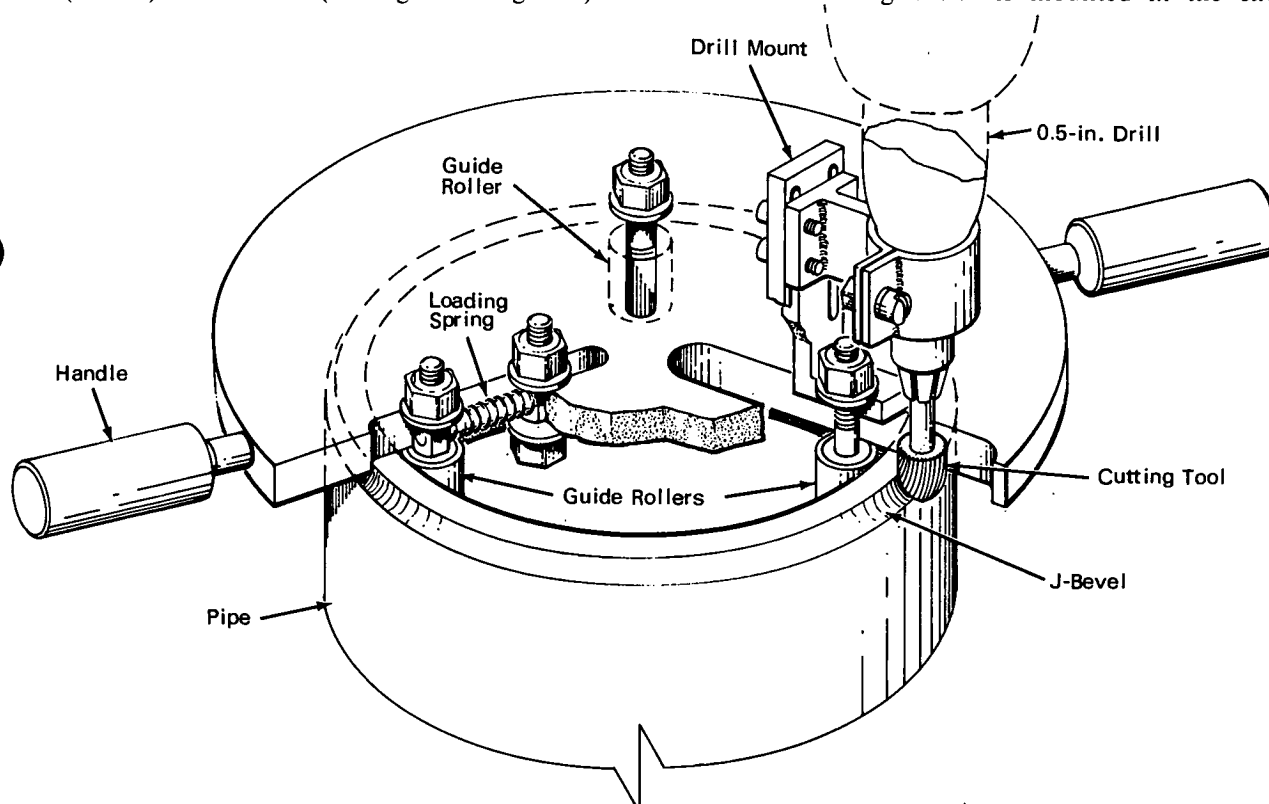


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Weld Beveling of Large-Diameter Pipes

The ends of pipes measuring between 15.24 and 45.72 cm (6 and 18 in.) in diameter can be J-beveled in the field, in preparation for welding, with a 0.13 cm (0.5 in.) electric drill (driving a cutting tool) and

With the jig centered over the end of the pipe, the rollers are set to fit the pipe's inner surface. The drill is mounted over the widest of the slots and a J-beveling cutter is mounted in the chuck.



a newly developed special jig. The technique is much faster and more accurate than earlier methods.

The jig consists of a circular steel plate, of about 45.72 cm (18 in.) diameter, in which three equidistant slots are radially cut (see fig.). A guide roller is mounted through each slot; one roller is spring loaded to allow for out-of-round pipes.

The drill is so mounted that the cutter bevels the end of the pipe's outer surface.

During operation, the drill is pressed inward to the proper depth for a rough cut, and is then locked in position. The jig is slowly rotated until the rough cut is complete. Finally, the drill is adjusted for the finish cut before the jig is again rotated.

(continued overleaf)

Notes:

1. Comparable pipe-beveling tools are described in Tech Briefs 68-10551, 69-10229 and 69-10231.
2. No additional documentation is available. Specific questions, however, may be directed to:
Technology Utilization Officer
Code AD-PAT
Kennedy Space Center, Florida 32899
Reference: B71-10280

Patent status:

No patent action is contemplated by NASA.

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